
ASSESSING NON-AERONAUTICAL ACTIVITIES AT CAIRO INTERNATIONAL AIRPORT

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ABSTRACT

Nowadays, airports enterprises are not limited with the aviation services but they include also the non-aviation ones. Thus, they are targeting to enlarge their commercial activities for the purpose of gaining revenues. Therefore, there is a growing attention towards the development of these activities.

The objective of this research is to assess the non-aviation (non-aeronautical) activities at Cairo International Airport by comparing it to Singapore Changi airport. A checklist was formulated based on the non-aeronautical services provided at Singapore Changi airport containing 9 main items divided into sub-items related to the main one. Data collected depend on the observation at Cairo International airport and from the navigation of the two websites of both.

The overall findings refer to the marked gap between Singapore Changi airport and Cairo International airport especially in the entertainment and passengers' services for the businessmen and the VIPs.

KEYWORDS: Airports, Passengers, Aeronautical activities, Non-aeronautical activities, Commercial facilities.

INTRODUCTION

Airports are traditionally understood as places for aviation services such as airport terminals, runways, control towers, etc. that serve travelling issue. These services are mainly serve three main elements

which are aeroplanes, passengers, and cargo (Kasarda, 2006). Revenues of airports come from two main sources which are the aviation (aeronautical activities) and the non-aviation (non-aeronautical activities) (Oum, Zhang & Zhang, 2004).

Nowadays, the highly effective performance of any airport is mainly dependent on the management of the airport concession such as: convenience and retail stores, food and beverage services, car rental services, banking, advertising services,... etc. (Alieva, 2017). Respectively, these non-aviation activities are highly handled to get revenues from business outside the core of the airport (Fasone & Maggiore, 2012).

LITERATURE REVIEW

AERONAUTICAL ACTIVITIES

Airports were found as the centres of the aeronautical activities, which are defined as all various activities that are related to the aviation operations concerning parking of the aircrafts, terminals and runways (Yang & Zhang, 2011). Belobaba (2009) pointed out that the main types of these aeronautical activities are: landing fees, aircraft parking fees, passenger and cargo service charges, terminal area navigation fees, airport noise charge, concession fees for aviation fuel and oil, and ground handling fees.

NON-AERONAUTICAL ACTIVITIES

It is a new trend that has been strongly developed in the recent years. They are commercial activities and facilities which play a vital role in the airport business as it is the main source of its revenues and its overall success performance (Zenglein & Müller, 2007). They are defined as activities that are not related to aviation operations, they can generate revenues and achieve higher commercial productivity so they are considered the main source of income for many airports (Fuerst, Gross, & Klose, 2011). Kasarda (2006) considered them as all commercial facilities and services offered to passengers who are the core of these activities.

The reports of the Air Transport Research Society (ATR) pointed out that there is a remarkable increase in revenues as a result of these non-aeronautical activities at several airports in Europe such as Frankfurt and Munich airports. This increase in revenues exceeds

50% (Dmitry, 2012). On the other hand, Lin and Chen (2013) found that the revenues generated from these activities surpass 53% from the total revenues for many airports.

Some of these activities that meet the passengers' needs are used by employees of the airport, companies' visitors, local residents and also passengers while other activities are only restricted on the ticket holders that are able to access the restricted area of the airport. These activities are highly profitable because of its lower operational cost compared to the aeronautical ones (Alieva, 2017). Thus, many airports seek to increase these sources of non-aeronautical activities for the aims of subsidization of the aviation charges, cost reduction, improvement of the productive efficiency and passenger experience in addition to providing entertainment in a highly stressful environment (Adler, Liebert & Yazhensky, 2013)

PROBLEM STATEMENT

Suffering of non-aviation sector at Cairo international airport from non-organization and leisure shortage in providing some commercial activities, facilities and services to passengers lead to:

- Dissatisfaction of some passengers who are the core of the business
- Problems in the growth of the overall airport business
- Disability of covering some infrastructure investments and improvements

RESEARCH OBJECTIVE

The research aims to assess the non-aeronautical activities at Cairo international airport compared to Singapore Changi airport as it is the best airport for six consecutive years by air travellers in the largest annual global airport customer satisfaction survey of 2018.

RESEARCH METHODOLOGY

The statistical tool exploited in this research is the descriptive analysis. It relies on comparing differences of non-aeronautical activities in Singapore Changi airport and Cairo international airport. Choosing Singapore Changi airport, this is because the reason of taking a crown as the world's best airport for the sixth year in row at 2018 according to Skytrax world airport awards (Skytrax World Airport Awards, 2018a). This award represents a global benchmark

of airport excellence as it is voted by airport customers in the largest annual global airport customer satisfaction survey.

Data collected was based on observation at Cairo international airport and from the navigation of the official websites of both airports. According to Lee & Yu (2018) and Rhoades, Waguespack & Young (2000), some airport facilities were determined regarding non-aeronautical activities that affect the quality of airport operations and the satisfaction of the customers. From these facilities: shopping, restaurant services, parking, banking, and business lounges. Accordingly, a checklist was formulated based on these facilities and on the outcomes extracted from the website of Singapore Changi airport.

This checklist contains nine main items that are divided into sub-items related to the main one. By comparing the two airports together, it was observed whether the item and its sub-items were presented or not and if it is presented whether it is sufficient at Cairo international airport or not compared to the state-of-the-art model of Singapore Changi airport.

RESULTS AND DISCUSSION

Changi airport floor area is 1,046,000 m² (11,260,000 sqft) and it handles 5931696 million passengers according to (2016-2017). It has about 70,000 m² (753,500 sqft) of space for the duty free area spread between its four main terminals for shopping and eating outlets. Terminal 3 is the largest retail space terminal as it occupies 20,000 m² (215,300 sqft). Cairo international airport floor area is about 37 square kilometres with 3 terminals and it counts around 14,711,500 passengers per year. It is the second busiest airport in Africa after Tambo international airport in Johannesburg. It has 1,300 sqm of retail space in Terminal 1 operated by Egypt Air. Terminal 2 has very limited commercial space within the 234,000 sqm building, and terminal 3 has 5000 m² retail space from which (4,034 m²) operated by Egypt Air tourism and duty-free shops.

DUTY-FREE AND RETAILS

It is one of the main sources of profit in most of airports. They are stores that are located in the area where passengers wait their flight, so they can take the advantages of this time by strolling all over this

area (Thubert et al., 2017). Duty-free area has a lot of convenience stores which are small shops that offer basic goods. They sell these goods with much higher prices than supermarkets. National association of convenience stores classified them into six types which are: mini, limited selection, kiosk, traditional, expanded and hyper stores (Zairis & Evangelos, 2014). Convenience stores can sell several items such as quick snacks, fresh prepared meals, frozen goods, soft drinks, bottles of water, beer, groceries, tobacco, newspapers,... etc. These stores are spread all over the airports to provide consumer for quick purchase (Convenience stores and their communities, 2018a).

NEWSSTAND AND BOOKSTORES

Newsstand sells newspapers and periodicals spread on an outdoor stall while bookstore is the place where you can buy books or sometimes used books (Hemmeter, 2006).

BAKERIES

They are retail stores that sell baked food in an oven mainly contains flour such as bread, cakes, pastries, cookies and pies. Sometimes they sell soft drinks like tea and coffee besides these items to make the customer has his/her drink while eating (Bock, Wrigley & Walker, 2016).

SOUVENIR STORES

They are retail stores that sell goods in which remind people of places that have been visited and also unforgettable memories. They can be clothes, jewellery, mugs, and antiques, hats branded with name and logo and souvenir cards ...etc (Sthapit, 2018).

FASHION AND CLOTHING STORES

These stores sell branded and unbranded clothing (Hourigan & Bougoure, 2012).

SPORT STORES

They are stores that sell sport clothes and sports equipment. They contain several types of equipment depending on the type of sport (Wakefield & Bennett, 2018).

ELECTRONIC AND RECORD STORES

They are an outlet stores that sell several types of electronics like DVD players, video games, laptops, cell phones,... etc. or record stores that sell CDs, DVDs of movies, TV shows and sometimes posters of singers.

There are other stores like beauty and wellness stores, toy stores, etc.

Table 1 Duty-free and Retails

Item	Singapore Changi airport			Cairo international airport	
	Present	Number	Examples	Present	
Convenience stores	✓	Spread all over the airport	-7 eleven - Cheers	✓	Spread in the retail area as several partitions beside each other
Newsstands and Bookstores	✓	10	-WH Smith -Discover Singapore Zoo	✓	
Bakeries	✓	20	-Bakery cuisine -The Golden Duck	✓	
Souvenir stores	✓	15	-Panadora -Swarovski -Luvenus	✓	
Fashion and Clothing stores	✓	100	-Chomel -BVLGARI -Giordano	✓	
Sports stores	✓	20	-Adidas Originals -ALDO	✓	
Electronic and Record stores	✓	11	-ETOZ -GadgetHub -I studio	✓	
Beauty & Wellness stores	✓	25	-Guardian -Health and Beauty -Spa express		
Toy stores	✓	3	-Avenue Kids -Kaboom	✓	

Changi airport offers about 350 stores spread all over its retail and duty-free area offering all kinds of luxury goods as mentioned above

in table 1. Duty-free area that has stores at Cairo international airport divides this area into several partitions not separate stores that sell all kinds of goods that meet the passengers' expectations. It introduces several excellent brands, outlets and gives a very good shopping environment. Terminal 3 has wider selection of duty free items as it is considered the largest retail space among the three terminals.

Duty-free stores provide a wide range branded products such as perfumes, cosmetics and skincare, bakeries, souvenirs, toys, electronics and fashion. Egypt Air duty-free shops provide a unique experience offering oriental products such as Alabaster and marble Anubis, Egyptian plate, whirling Devish Tableau and other Pharaonic souvenirs that reflect the Egyptian identity with its culture, history and local customs. Regarding the bookstore, it is operated by Egypt's leading book shop 'Al-Shorouk' at the same area of duty-free. Cairo international airport also has a landside stores that provide goods and convenience items for passengers, meters and greeters such as travel goods, newspapers, magazines, pre-paid phone cards,... etc.

Results of table (1) show that all duty-free items are present in both airports to meet passengers' needs and desires. It is clear that Changi has separate and independent stores that let passengers target the item they need easily while at Cairo international airport, all items are spread all over the duty-free area and passengers have to walk to find out what they need. It is also apparent that there are a big number of stores at Changi with a huge number of items with a very high quality, and offered to passengers in an amazing way that urge their desire to buy. This is due to the huge area of the airport and respectively its duty-free area.

FOOD AND BEVERAGE SERVICE

They are part of the hospitality sector. It includes preparing meals, snacks, and beverages to guests, welcoming and greeting them, taking their orders and at last preparing the bill then finally performing several tasks after the guest leave (Food and beverage services, 2018a).

Food and beverage establishments include several types of restaurants among which: fine-dining, casual dining, quick service,

snack bars, commercial cafeterias and buffets despite of vending machines (Powers & Barrows, 2009).

Fine dining restaurants provide meal courses through their cuisines. They offer full and elegant service that meets guests needs (Maier, 2009). Radzi (2014) clarified casual dining restaurants as an informal type of restaurants that offer full service and serve different types of food with menu variety and reasonable price in a casual atmosphere.

Quick service restaurants are a type of restaurants that provide fast food and it also named fast food restaurants. They almost serve food with poor nutrition quality and with minimal preparation and moderated price (Toft, Erbs-Maibing & Glümer, 2011). Medlik (2003) and Halper (2001) defined snack bar as a small and informal establishment or counter where inexpensive food, snacks and soft drinks are sold to be taken away. In airports for example, snack bars can help passengers to satisfy their need to eat when they are in a hurry.

Cafeterias allow passengers to choose among several options from a menu, pay for it then take what they have chosen from the counter to the table where they sit. It just needs a dining area where tables are placed (Heung, Wong & Qu, 2000) and (Mackenzie and Chan, 2009). Buffets are self-service meal displayed on a long table containing variety types of food. It may be breakfast, lunch or dinner buffet (Cambridge Dictionary, 2018a). Vending machine is a type of delivering food and beverage through an electronic machine. This type of machines bring out items you need after a certain money have been put (Ruther Ford and O'Fallon, 2007). Food courts or dining areas are sometimes present to enable guests take their food and sit to eat. They serve many small restaurants beside each other (Jakle & Sculle, 2002). Jakle and Sculle (2002) also clarified that simple meal and drinks are served in cafes.

Table 2 Food and beverage services

Item	Singapore changi airport			Cairo international airport		
	Present	Number	Examples	Present	Number	Examples
Fine dining restaurants	None	-	-	None	-	-
Casual dining restaurants	✓	29	<ul style="list-style-type: none"> ▪ Chutney Maky Indian ▪ Japan Gourmet Hall SORA ▪ Peach Garden Chinese Dining 	✓	1	YUMCHA
Quick service restaurants	✓	8	<ul style="list-style-type: none"> ▪ 4 Fingers ▪ Crispy Chicken ▪ Burger King ▪ KFC ▪ McDonald's 	✓	9	<ul style="list-style-type: none"> ▪ Buger King ▪ Gino's Pizza and Pasta ▪ McDonald's
Snack bars	✓	32	<ul style="list-style-type: none"> ▪ Hops Bar ▪ Dunkin' Donuts ▪ O'learys 	✓	14	<ul style="list-style-type: none"> ▪ Puro Gusto ▪ Hippo Bar and Grill
Cafeterias	None			✓	3	<ul style="list-style-type: none"> ▪ Tourism & duty-free shops (operated by Egypt Air)
Buffets	None			None		

Vending machines	None			None		
Cafes	✓	37	<ul style="list-style-type: none"> ▪ Paul ▪ Starbucks coffee ▪ Jewel coffee 	✓	44	<ul style="list-style-type: none"> ▪ Aero café ▪ Cilantro ▪ Starbucks
Food court	✓	4	<ul style="list-style-type: none"> ▪ Singapore Food Street ▪ Straits Food Village ▪ Kopitiam 	✓	1	

Results of table (2) show that there are several restaurants, fast food, cafes, and snack bars in both airports relatively to their areas. They are spread in various locations (arrivals, departure halls or in the public area) in every terminal so passengers, employees or even meters and greeters can enjoy a wide range of food and beverage services. The only casual dining restaurant at Cairo international airport is YUMCHA which is located at VIP lounge.

Fine dining restaurants, buffets and vending machines are not present in both airports. Only vending machines present in Changi airport is not for food and beverage but they offer other products such as books, gifts, and souvenirs (e.g., Kalms vending machine). There are four food courts at Changi airport while Cairo airport has only one. There are also three cafeterias at Cairo international airport operated by Egypt Air Tourism and Duty-free shops.

CAR PARKING AND RENTAL

Outside airports, there is a huge area for parking. This area includes the parking area, car rental companies and city shuttle. Parking area is usually divided into several portions to meet the passengers’ need for parking and gives a great flexibility in accessing airports for passengers, visitors, employees and transfer men who meet and greet tourists (Aldridge *et al.*, 2006). Car rental companies are also present in this area to rent cars for passengers for short period and to deliver them to their destination. Using rental cars is much more than using private cars (Pels, Nijkamp & Rietveld, 2003). City shuttle plays an important role in connecting the city that has an airport. It is also crucial in cities that have shortage in public transportation (Castillo-Manzano & Sánchez-Braza, 2011).

Table 3 Car Parking and Rental

Item	Singapore Changi airport			Cairo international airport		
	Present	Number	Examples	Present	Number	Examples
Airport parking	✓	9		✓	10	
Car rental	✓	6	<ul style="list-style-type: none"> ▪ Avis ▪ Budget ▪ Sixt Rent a Car	✓	6	<ul style="list-style-type: none"> ▪ Avis ▪ Europcar ▪ Hertz ▪ Sixt

City shuttle	✓			None		
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Singapore car parking area includes areas for motor cars including vans, motorcycles and scooters. Car parking area at Cairo international airport is covering a net used area of 86,395 square metres. Its capacity handles about 3612 cars for short and long parking facilities. City shuttle at Changi airport brings passengers to most downtown hotels at a rate of \$9 per adult and \$6 per child (below 12 years) and it departs every 15 minutes during peak hours and up to 30 minutes during non-peak hours. There is no city shuttle service at Cairo international airport. Regarding the car rental companies, both airports have several companies for this purpose as shown in table (3). In Cairo international airport, their offices are located in all terminals. There is also a limousine car service for transporting passengers to/from the flight with a private car.

BANKING

Banking service nowadays is very important to customers as it provides a lot of financial services that they require. Automated teller machines (ATMs) are a self-service technology that facilitates to customers doing a lot of financial transactions without employees’ interventions. It was used in the past for just dispensing cash but nowadays they are used in several transactions like money transfer, paying bills and depositing money,.... etc. (Bogicevic et al., 2017). Bogicevic et al (2017) also clarified that moneychangers are offices where customers can exchange currency from one to another.

Table 4 Banking services

Item	Singapore Changi airport		Cairo international airport		
	Present	Number	Present	Number	Examples
ATMs	✓	Several banks	✓	8 banks	<ul style="list-style-type: none"> ▪ The United Bank ▪ Banque du Caire ▪ Banque misr ▪ CIB
Moneychanger	✓	Many	✓	Many	<ul style="list-style-type: none"> ▪ Banque misr exchanger

ATMs cash machines are available in various locations in both airports. They are located in every terminal at Changi. They are also located in terminal 1 and 3 at Cairo international airport in arrival halls, departure halls, customs area and departure check-in areas. There are a lot of machines for different banks as mentioned in table 4. Regarding the currency exchange, the moneychanger offices are located in different sites of the airport. They work 24 hours all days of the week and they exchange the money from one currency to the local currency. Bank branches may also provide such service like Banque misr money exchangers' branches present in Cairo international airport.

ENTERTAINMENT (LEISURE FACILITIES)

There are several facilities that may be present in some airports which give amusement and pleasure. From these leisure facilities: gardens, swimming pools, play areas, movie theatres, cinemas, .etc.

Table 5 Entertainment Facilities

Item	Singapore Changi airport		Cairo international airport
	Present	Number	Present
Gardens	✓	6	None
Swimming pool with Jacuzzi	✓	2	None
Play area	✓	4	None
Movie theatre	✓	2	None
Cinema	✓	1	None

Singapore Changi airport gives a lot of entertainments offerings to its passengers, not only the ticketholders, but also for public. It takes the approach of gardening as it has about 6 different gardens such as Catcus garden that has 40 species of succulents from Africa and the Americas located in terminal 1 that has bars offering drinks for customers. Water lily garden also present in terminal 1 which gives a natural aquatic environment in addition to Orchid garden which has colourful collection of rare orchids present in terminal 2.

There is also Sunflower garden that has 1,000 tropical butterflies from 40 different species at terminal 3. Enhanced garden is a decorative garden of glass and mosaic sculptures with sights and sounds triggered by motions located in terminal 2. Changi airport has

also kinetic rain which is made of 1,216 bronze droplets. It stands mesmerised by dancing and it is the centrepiece of terminal 1. It is considered the world's largest kinetic sculpture. Moreover, it has entertainment deck that offers games and movies in terminal 2. It has also the tallest slide in an airport which is about 12 metres in terminal 3 and also the glass dome with the world's tallest indoor waterfall. Changi airport has opened terminal 4 since 2017 to redefine the travel experience, it contains Parakanan love story which has Singapore's local talents and artists, a centre piece garden: Stell in Bloom which explores the interactions of humans with nature. Peta clouds grand scale kinetchi sculpture is also located in terminal 4 which consists of six structures suspended 200 metres across the central Galleria. It delivers a magical experience to audience. Moreover, Heritage zone is present that has the interior designs and furnishings to invoke a sense of nostalgia.

Swimming pools are located at Aerotel airport transit hotel and has Jacuzzi, poolside bar and shower facilities. Travellers are invited to relax and enjoy these facilities while waiting their next flight (cost per person SGD 13). Hotel's guests can also enjoy these facilities on a complementary basis. There are also 4 play areas at Changi and 2 movie theatres 24-hours in terminal 2 and 3 in addition to 24-hours cinema. Cairo international airport has nothing of these leisure facilities. It has several play areas in every departure terminal offering plastic seesaws and playhouses offered from the American Toy company. Terminal 3 has only a touchscreen video games and a climbing wall outside the food court.

PASSENGER SERVICES

They are services that offered to customer which include family services, wheelchairs, medical services, beside baggage storage and porter services.

- Family services include strollers, playgrounds for kids, and baby care rooms and lounges. Changi's information and customer service counters offer strollers for accompanying babies to facilitate pushing. Changi airport has also a wide range of playgrounds in the baby care rooms to provide entertainment for kids at each terminal. Regarding the baby care rooms and lounges, there are 4 rooms at Changi airport to offer the privacy for babies equipped with hot water dispensers. They also offer private spaces where passengers can bath feed or even sleep their babies. Cairo international

airport is missing these family services which are considered important services for many families that have babies on board.

- **Wheelchair services:** Disabled passengers nowadays can easily travel by air. Wheelchairs and motorised equipment are now available in most airports on their departure and upon their arrival. In addition, airports and aeroplanes are now equipped to facilitate their travel and meet their needs. Toilets in terminals and on board are also equipped with door expansion to let them travel comfortably with some assistance (Chang & Chen, 2012). Changi airport and Cairo international airport provide this service to those passengers with the assistance of specially trained staff that can easily handle emergency situations. They also have sign language for those people, vocal announcement, visual and hearing impairment for disabled for the reason of assisting them and facilitate travelling.

Changi's information and customer service counters offer wheelchairs to the elderly and less mobile physically passengers on complimentary basis in addition to installing ramps, friendly lifts and special toilets. They can be rented from the medical centres for \$15 per hour. Elevators and ramps ensure that these passengers can access all the levels of the building without any problem. Restaurants, restrooms, and even baby lounges can also be easily accessed by these wheelchairs. Cairo international airport provides many special services for these disabled passengers, among which: wheelchairs, disabled toilets, ramps and even special passport control services. They only should notify airlines in advance for getting the required assistance.

- **Medical services:** Both Changi and Cairo international airports offer medical services for whom that do not feel well or need a medical assistance through clinics and pharmacies. These medical services are available among the entire airport (public areas, terminals and transit lounges). They can provide first aid measures to all passengers. Changi airport has a privilege that it provides medical advices for travellers, various vaccinations, and up-to-date information on health situation. It has 6 clinics among which Raffles Medical Group. This is in addition to several pharmacies in both airports. Changi has 10 pharmacies like Watsons while Cairo

international airport has only 2, from which El-Ezaby pharmacy.

Cairo international airport has an exclusive service for passengers which is called 'Ahlan' service. It is a professional and dedicated service offered to all distinguished guests. It provides an exclusive service through exclusive staff that makes all the necessary formalities on arrival and departure. This service divided into two main categories: VIP, and meet and assist service. VIP services include all formalities, claiming luggage and giving access to VIP lounges, in addition to offering a private car. Meet and assist service include doing the same but for all passengers in normal lounges.

- Baggage storage and porter services: This service is only available in Changi airport as a payable service and its rate depends on the weight of the baggage. Passengers can store their luggage through centres which are available 24 hours daily.
- Porter services are available in both airports especially at the departure points or arrival areas. They help passengers and assist them in carrying and moving their luggage. In Changi airport, this service requires booking in advance with a minimum 4 hours before flight departure. It costs SGD 3.00 for each item.

COMPLEMENTARY SERVICES

These services include the following:

- Business centres: these centres offer a number of services such as typing, mailing of documents, photocopying, and faxing in order to facilitate work for passengers and for businessmen in particular.
- Pay-per-use lounges (lounge facilities): they are lounges that are present in transit area where guests can relax in private rooms and in some cases they offer some facilities including gymnasium, shower facilities, beauty and massage services, hotel reservation counters and private napping suites. These extra services are payable.
- Hotel reservation counters: they are counters that offer reservation for different hotels.
- Meeting rooms: these rooms are prepared and equipped for meeting reasons. They also offer video conference capabilities to meet all needs of businessmen and VIP passengers.

- Meeting rooms sometimes attract passengers because in some cases their meetings coincide with their flights and sometimes they have some participants coming from different destinations which make the airport ideal place for professional gathering. Businessmen sometimes make phone calls or prepare for meetings at airport business centers.
- Single occupancy nap rooms: these rooms have a range of entertainment options from widescreen TVs, a business area with Apple Macs and PCs to newspapers, magazines and complimentary WI-FI.
- Educational services: it provides some training courses to equip managers with knowledge, skills and tools to manage the service quality at the airport. It also gives them an overview about the leading airports and how they become leaders in this industry

In addition to these services, there are transit hotels, and travel agencies present in both airports to meet all passengers’ needs.

Table 6 Complimentary Services

Item	Singapore Changi airport			Cairo international airport		
	Present	Number	Examples	Present	Number	Examples
Business centres	✓	3		None		
Pay-per-use lounges	✓	16	<ul style="list-style-type: none"> ▪ Quantas Singapore lounge ▪ DBS Asia Treasures Lounge 	✓	3	<ul style="list-style-type: none"> ▪ English lounge ▪ Italian lounge ▪ American lounge
Hotel reservation counters	✓	3		✓	20	
Meeting rooms	✓	4		None		
Single occupancy nap rooms	✓			None		
Educational services (Training Courses)	None			✓		ACI GTH Training Centre

Travel agencies	None			✓	19	
Transit hotels	✓	3	▪Airotel Airport Transit Hotel	✓		

Business centres are present in both airports. There are 3 business centres at Changi airport while no business centres at Cairo international airport. Regarding the pay-per-use lounges, Changi airport offers special facilities at these lounges like what is mentioned above against charge. Cairo international airport has a VIP lounge as it just provides a kind of privacy for VIP passengers. It has 3 main lounges (English, Italian, and American) besides a stereo restaurant. These lounges are located at the centre of the airport where passengers can enjoy having a drink while having a view of the transit hall. This is in addition to a special food offered to them from a delicious menu. There are also about 5 lounges related to Egypt Air that offer snacks, food, hot and cold beverages, internet access, toilet facilities, workstation area that has PC desktops, fax printers, and a partition for the disabled passengers. There are also 2 lounges for VIPs, one belongs to the Turkish airlines and the other belongs to the Ethiopian airlines. Hotel reservation counters are located across all airport terminals for reserving different hotels. In Cairo international airport, there are 20 hotel counters among which Nile Ramses Hilton, Four Seasons, Conrad Hotel and Sheraton Hotel while only 3 in Changi airport.

Novotel Cairo Airport Hotel is the nearest hotel to the airport and it provides several facilities to guests like conference facilities, luggage store room, car parking, swimming pools, medical services, sports courts, restaurants/bars and cafes. There are also several hotels which are located at Heliopolis area such as Le passage Cairo Heliopolis Hotel, Fairmont Heliopolis Hotel, Radisson Blu Hotel...etc. All these hotels have all the services and facilities that meet the passengers' needs from all nationalities. Regarding meeting rooms, there is no meeting room in Cairo international airport while there are 4 at Changi airport. Single occupancy nap rooms are only present at Changi airport while the educational services and training courses are only given at Cairo international airport through ACI GTH Training Centre. These courses are given to guide managers to a holistic approach to reach the best practice in this industry.

There are about 19 travel agents at Cairo international airport that provides several services among which issuing and reserving tickets, hotel reservation in addition to arranging tours to passengers. From these travel agencies: Fast Tours, Paradise, Misr Travel....etc. Changi airport has no travel agencies, only online connection to travel agencies through websites. Transit hotels at Changi provide rooms which are well-equipped with a power shower and an array of amenities including swimming pool with Jacuzzi to relax and refresh while the passengers are waiting their next flight. Transit hotel at Cairo international airport has just several rooms located inside the airport for transit passengers to let them stay their nights while waiting their next flight.

COMMUNICATION SERVICES

Both airports offer WI-FI services among its all terminals through what is called 'Public Wireless Lan Access'. Cairo international airport manage this service by aviation information technology (AVIT). Several public phone cabins are also spread among both airports using the pre-paid cards. Post offices are also present in both airports.

WEBSITES

The information about the non-aeronautical activities nowadays can be increasingly spread through websites (Al-Qeisi et al., 2014). Halpern and Regmi (2013) have observed that we can analyse any website functionality through three levels which are: information, communication and transaction levels. Regarding information, Cairo international airport's website offers an in depth, well-arranged and accurate information but without supporting it by active images, multimedia, relevant links or even event calendar. Information shown on this website is also not updated or comprehensive. On the contrary, Changi airport's website displays updated valuable information that is supported by images, maps as well as a flexible transferring among different website sections. For communication, Cairo international airport website does not care about communication, interaction or customization aspects. On the other hand, Changi airport's website is eager to an effective interaction with passengers in particular and with their browsers in general by providing contact information, feedback forms, and links to various social media. It also provides a section for the frequently asked questions and rapid linkage. Finally, Cairo international airport does not focus on the transaction features of the non-aeronautical activities

while Changi airport's website offers online reservation channels with different currencies convertors to help passengers to complete their transactions.

CONCLUSION

- Duty-free and Retail space area in Changi airport is about 7% from its total floor area while it is 17% at Cairo international airport compared to its total floor area. This is very accepted in Cairo international airport for the reasons of shopping and entertainment during the time of waiting passengers their flights.
- Both airports have a huge number of retail stores accepted respectively in comparison with its duty-free area and this gives a good opportunity for the leisure shopping activity.
- Food and beverage products are widely spread in both airports relatively to their areas giving passengers good opportunities to have what they need from different restaurants, cafes, snack bars, etc.
- Car parking and Rental services are sufficient in each airport respectively to the number of passengers they handle, but there is a shortage in Cairo international airport for the absence of the city shuttle which is greatly important in Cairo to facilitate transfers of passengers especially that Cairo has a serious problem in its local transportation.
- Spreading of banking services and ATMs in different locations in both airports that facilitate several transactions and money exchange.
- Regarding the entertainment and leisure facilities, complimentary services, passengers services, there is a noticeable gap between Changi airport and Cairo international airport as Changi provides a magical amazing travel experience.
- For VIPs and businessmen, they will feel the great difference in services and facilities provided in both airports.
- There is a clear shortage in Cairo international airport's website compared with the website of Changi airport. Cairo international airport's website does not care about communication, interaction or any customization aspects, showing a great weakness in the interaction with passengers.

RECOMMENDATIONS

Based upon both the literature review and field study findings, the following recommendations could be introduced to Cairo international airport which are:

- Exploiting dwell time spent in waiting flights to increase commercial revenues from non-aeronautical sources to compete and better serve the passengers and traditions aviation functions
- Increasing luxury factors and meet the needs of a large sector of passengers that seek leisure and affluences
- Diversifying and expanding the business, leisure, and lounge facilities to meet not only the passengers' needs but also the needs of local residents in order to improve the airport revenues
- Taking Singapore Changi airport's website as a state-of-the-art model with the purpose of executing effective corporate communication with public to maintain good relations and develop good will towards the airport.

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